

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of ~~protecting a local area of~~ removing a coating from a gas turbine component ~~from the effects of thermochemical or mechanical processes carried out on the surface of component~~, the method comprising the steps of

applying a masking material to ~~the~~ a local area or to local areas on the gas turbine component so that ~~the local area is protected by the masking material~~, said masking material containing at least one filler material,

at least partially thickening the masking material having the at least one filler material,

removing the coating from the gas turbine component using a ~~carrying out the thermochemical or physical removal~~ a mechanical process ~~for the removal of material from the surface of the component~~; and

removing the ~~thickened~~ masking material from the local area of the ~~component~~ or the local areas.

2. (Currently Amended) The method according to claim 1, wherein the local area to be protected is a braze joint, a cooling hole, or a local part of a coated area ~~or any other area of a gas turbine component which is sensitive to the thermochemical and/or physical removal process~~.

3. (Canceled)

4. (Currently Amended) The method according to claim 3 1, wherein the masking material is applied ~~to the cooling holes~~ from the an external surface or from an internal cavity of the component.

5. (Currently Amended) The method according to claim 1, wherein the masking material is thickened by the use of an energy source, whereby ~~the energy~~ impinges ~~the masking material~~ from the outside or from an internal cavity of the component ~~to the masking material~~ .

6. (Previously Presented) The method according to claim 1, wherein after applying the masking material the surface of the component is cleaned by mechanical means to remove any unwanted residual masking material .

7. (Currently Amended) The method according to claim 1, wherein a ~~masked~~ the masking material ~~which~~ comprises a substance which fluoresces under ultraviolet light ~~is applied~~.

8. (Currently Amended) The method according to claim 7, ~~wherein~~ comprising carrying out an inspection using ultraviolet light to locate any unwanted residual masking material on the surface of the component and removing ~~this~~ the unwanted residual masking material from the surface by mechanical means.

9. (Currently Amended) The method according to claim 8, wherein after removing unwanted residual masking material, a re-inspection is carried out using ultraviolet light to locate any further unwanted residual masking material .

10. (Currently Amended) The method according to claim 8, wherein after removing unwanted residual masking material, masking material is reapplied to the local area.

11. (Currently Amended) The method according to claim 1, wherein the thermochemical or ~~physical~~ mechanical process is one or a combination of a chemical etching method, acid or alkaline stripping, water jet stripping, grit blasting, high speed grit blasting or another abrasive technique.

12. (Currently Amended) The method according to claim 1, wherein the component is heated before or during the method to facilitate the application and/or ~~thickened~~ thickening of at least a portion of the masking material .

13. (Currently Amended) The method according to claim 1, wherein the masking material is applied in a step wise fashion in which it is at least partially thickened before applying the next amount ~~in the cooling holes~~.

14. (Previously Presented) The method of claim 13, wherein the amount of filler is changed from layer to layer of masking material.

15. (Previously Presented) The method of claim 14, wherein the masking material of the last layer contains 30 – 80 vol.-% filler material with a grain size of 40 – 150 μm to a depth not less than 1 mm.

16. (Currently Amended) The method according to claim 1, wherein the fillers added to the masking material include particles or fibres of metal, oxide material ~~such as silica, magnesia, calcia, alumina, zirconia, yttria or a mixture thereof~~ and or organic materials.

17. (Original) The method of claim 16, wherein the filler content is in the range of 10 – 90 vol.-%.

18. (Original) The method of claim 17, wherein the filler content is in the range of 20 – 60 vol.-%.

19. (Previously Presented) The method according to claim 1, wherein the filler particle diameter size is on average, or contains mixtures with average diameters, ranging from 1 μm to 500 μm .

20. (Original) The method according to claim 19, wherein the filler particle diameter size is on average, or contains mixtures with average diameters, ranging from 10 μm to 150 μm .

21. (Original) The method according to claim 20, wherein the filler particle diameter size is on average, or contains mixtures with average diameters, ranging from 40 μm to 100 μm .

22. (Currently Amended) The method according to claim 1, wherein the removal of the thickened masking material from the local area is done by burning it out and a final removal of any residual masking material from the local areas is completed ~~the~~ by water jet machining or by an ultrasonic cleaning treatment.

23. (Currently Amended) The method according to claim 22, wherein the local area is a cooling hole and the step of the removal of ~~any residual~~ masking material in cooling holes is done by locating the cooling holes using a vision system which directs a CNC computer numerically controlled machine.

24. (Previously Presented) The method according to claim 1, wherein the masking material is a photopolymerizing resin or a mixture of resins and photoinitiator which polymerize with exposure to ultraviolet light.

25. (Currently Amended) The method according to claim 1, wherein the masking material is a UV polymerizing plastic ~~such as polyurethane, a polyurethane oligomer mixture, 2-Hydroxyl Methacrylate, Isobornyl Acrylate, Maleic acid, methyl methacrylate, butyl acrylate copolymer, acrylic acid, T-Butyl Perbenzoate, poly(isobutyl methacrylate), poly(vinyl toluene), polypropylene or a polypropylene /~~

~~polyurethane oligomer mixture, the class of polymers vetones or silicones, or any mixture thereof.~~

26. (Currently Amended) The method according to of claim 25, wherein thickened masking material containing the filler material is heated or processed so as to volatilize or otherwise remove the volatile, not polymerized organic portion of the masking material before the thermochemical or ~~physical~~ mechanical process on the surface of the component is carried out.

27. (Currently Amended) The method according to claim 25, wherein ~~there are included in~~ the masking material includes binding agents which are effective in holding together the solid particles or fibres of the filler material after the organic portion of the masking material is removed.

28. (Currently Amended) The method according to claim 1, wherein the masking material is thickened by an electromagnetic energy source, ~~which is electromagnetic such as visible, ultraviolet or infra-red light or a~~ collimated light energy source such as laser.

29. (New) The method according to claim 28, wherein the electromagnetic energy source is visible, ultraviolet or infra-red light.

30. (New) The method according to claim 28, wherein the collimated light energy source is a laser.

31. (New) The method according to claim 1, wherein the local area to be protected is an area of a gas turbine component which is sensitive to the thermochemical and/or mechanical process.

32. (New) The method according to claim 16, wherein oxide material includes silica, magnesia, calcia, alumina, zirconia, yttria or a mixture thereof.

33. (New) The method according to claim 25, wherein the UV polymerizing plastic is a polyurethane, a polyurethane oligomer mixture, 2-Hydroxyl Methacrylate, Isobornyl Acrylate, Maleic acid, methyl methacrylate, butyl acrylate copolymer, acrylic acid, T-Butyl Perbenzoate, poly(isobutyl methacrylate), poly(vinyl toluene), polypropylene or a polypropylene / polyurethane oligomer mixture, the class of polymers vetones or silicones, or any mixture thereof.